

## **Sodium Lauryl Sulfate (SLS ) and Sodium Laureth Sulfate (SLES)**

Both Sodium Lauryl Sulfate (SLS) and its close relative Sodium Laureth Sulfate (SLES) are **commonly used in many soaps, shampoos, detergents, toothpastes** and other products that we expect to "foam up". Both chemicals are very effective foaming agents, chemically known as surfactants.

SLS and SLES are esters of Sulphuric acid - SLS is also known as "Sulfuric acid monododecyl ester sodium salt", however there are over 150 different names by which it is known. In fact, SLES is commonly contaminated with dioxane, a known carcinogen.

Although SLES is somewhat less irritating than *Sodium Lauryl Sulfate*, it cannot be metabolised by the liver and its effects are therefore much longer-lasting.

A report published in the Journal of The American College of Toxicology in 1983 showed that concentrations as low as 0.5% could cause irritation and concentrations of 10-30% caused skin corrosion and severe irritation. National Institutes of Health "Household Products Directory" of chemical ingredients lists over 80 products that contain sodium lauryl sulfate. Some soaps have concentrations of up to 30%, which the ACT report called "**highly irritating and dangerous**".

Shampoos are among the most frequently reported products to the FDA. Reports include eye irritation, scalp irritation, tangled hair, swelling of the hands, face and arms and split and fuzzy hair. The main cause of these problems is sodium lauryl sulfate.

### **So why is a dangerous chemical like sodium lauryl sulfate used in our soaps and shampoos?**

The answer is simple - it is cheap. The sodium lauryl sulfate found in our soaps is exactly the same as you would find in a car wash or even a garage, where it is used to degrease car engines.

In the same way as it dissolves the grease on car engines, sodium lauryl sulfate also dissolves the oils on your skin, which can cause a drying effect. It is also well documented that it denatures skin proteins, which causes not only irritation, but also allows environmental contaminants easier access to the lower, sensitive layers of the skin.

Perhaps most worryingly, SLS is also absorbed into the body from skin application. Once it has been absorbed, one of the main effects of sodium lauryl sulfate is to mimic the activity of the hormone Oestrogen. This has many health implications and may be responsible for a variety of health problems from **PMS** and **Menopausal symptoms** to **dropping male fertility** and increasing **female cancers** such as **breast cancer**, where oestrogen levels are known to be involved.

### **Products commonly found to contains Sodium Lauryl Sulfate or SLES**

- Soaps
- Shampoos
- Tooth paste
- Dish soap
- Laundry detergent
- Children's soaps / Body wash / Bubble-baths
- Stain Remover
- Carpet Cleaner
- Shave cream
- Make-up, especially Mascara
- Mouthwash
- Moisture lotion / Sun Screen

Do not believe that just because a product is labeled as "**natural**" it is free from SLS or SLES. Most common brands of "Natural" or "**Herbal**" shampoos and cleansers still use these harmful chemicals as their main active ingredient - check your labels!